

### **REMARKS / ARGUMENTS**

The present application includes pending claims 1-31, all of which have been rejected. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 1-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. (US Application 2004/0039817, hereafter "Lee") in view of Schmidt (US 7,058,040, hereafter "Schmidt").

#### **I. RESPONSE TO EXAMINER'S ARGUMENTS**

At page 6 of the Final Office Action, the Examiner disagrees with the Applicant's argument that Schmidt's wireless communicator device 100 is inside a mobile station device, such as a cellular device, and not a base station, such as an access point. The Examiner relies for support on Schmidt's Fig. 1D and col. 4, lines 36-63, and argues that "Schmidt mentions the base station, which is equal to the access point, many places in the entire reference".

The Applicant has carefully reviewed the Examiner's cited portion from Schmidt and respectfully disagrees that the wireless communicator device 100 is inside the base station. On the contrary, Schmidt discloses that the short range wireless transceiver core 130 (802.11 LAN and Bluetooth) and the cellular radio core transceiver 110 (i.e.,

GSM, WAN) in the communicator device 100 are used inside a mobile station, not inside the base station, as alleged by the Examiner.

Initially, the Applicant points out that Schmidt's invention is about channel interference reduction (see Schmidt's abstract) between communicator devices. Specifically, Schmidt discloses in the background section that these communicator devices are "**mobile phones, PDAs, and headsets**", which transmit in coexisting 2.4 GHz frequency band that supports Bluetooth connections and IEEE 802.11 wireless LANs communications in minimized interference (see Schmidt at col. 1, lines 6-29). For example, Schmidt refers such devices as a mobile wireless device:

"The system allows an end-user of **a mobile wireless device, such as a mobile phone or portable computer**, to minimize interference and thus **to transmit messages and information quickly over wireless channels**. This is achieved by time-division multiplexing potentially interfering transmission"

Schmidt in Figs. 1A, 1B and 1C disclose three processes, namely, 10, 30 and 70, where the Bluetooth transceiver and the 802.11 transceiver of a wireless device, are instructed to communicate in allocated time-slot channels. Specifically, Schmidt states:

"a process 10 applies a TDMA process where **each transmitter communicates** in accordance with agreed upon time slot. In this embodiment, a system with **Bluetooth transceivers and 802.11 transceivers** can transmit data over Bluetooth and 802.11 (first and second) media that overlap, in this case at the 2.4 GHz frequency band. ... **The process instructs transceivers for the first and second media** to communicate only in their allocated time-slot channels (step 18)."

See Schmidt at col. 3, lines 38-53 (emphasis added). Schmidt, in the following citation, further discloses a **single mobile station** with the transceivers transmitting the first and second media (i.e., the Bluetooth and 802.11) in allocated TDMA time slots:

"The processes 10, 30 and 70 can further allow a **single mobile station** to transmit on multiple cellular frequency channels that have been "bonded" or linked together for the purpose of the transmission.... a **single mobile station** can transmit on multiple time slots of the same TDMA frame..."

See Schmidt at col. 4, lines 23-26 (emphasis added). Schmidt discloses that the Bluetooth and 802.11 transceivers are used inside a single mobile station, not inside a base station. The Examiner relies for support on Schmidt's Fig. 1D to allege that Schmidt discloses that the multi-mode wireless communicator device 100 is used inside a base station. For example, Schmidt states the following:

"First, the process of FIG. 1D receives a request to communicate one or more files with a data transmission size (step 102)...Next, the process requests an allocation of cellular frequency channels **from a mobile station to a base station** (step 106). In response, **the base station looks up available (open) frequency channels** in its memory storage **and allocates available frequency channels in response to the request from the mobile station** (step 108). **Information on the allocated channels is sent to the mobile station to set up its transceiver to capture data on all allocated channels** (step 120). ... Once the mobile station sends an acknowledgement ... the base station can transmit data over the plurality of frequency channels (step 124). In this manner, the allocated frequency channels are bonded together to communicate data with high bandwidth. ..."

See Schmidt at col. 4, lines 36-63 (emphasis added). The Applicant points out that Schmidt merely discloses that the mobile station (i.e., the mobile phone), sends a

request in cellular frequency channels to the base station (i.e., the alleged access point), to receive allocation frequency channel information for data transmission. Schmidt neither discloses nor suggests that the transceivers are inside a base station, let alone that the multi-mode wireless communicator device 100 of Fig. 2 is used inside a base station, as alleged by the Examiner.

To further substantiate the Applicant's argument in the July 16, 2008 response that Schmidt's multi-mode wireless communicator device 100 is used in a mobile station (i.e., a mobile cell phone), and not in a base station, the Examiner is referred to the following citation by Schmidt:

**"For voice reception, the combined signals are processed by the processor core 150 to form PCM voice samples that are subsequently converted into an analog signal and provided to an external speaker or earphone. For data reception, the processor simply transfers the data over an input/output (I/O) port. During voice transmission, an off-chip microphone captures analog voice signals, digitizes the signal, and provides the digitized signal to the processor core 150...During data transmission, the data is modulated ... then fed to the cellular telephone transmitter of the transmitter/ receiver section."**

See Schmidt at col. 4, lines 36-63 (emphasis added). The Applicant points out that Schmidt discloses that for voice reception, the processor core 150 disclosed in the multi-mode wireless communicator device 100, converts the PCM voice samples **into an analog signal for an external speaker or earphone**. The Applicant points out that such analog output function "to an external speaker or ear phone", is clearly performed by a mobile cell phone, not by an access point. In addition, Schmidt also discloses that for data transmission, the processor core 150 modulates data and **feed the modulated**

**data to the cellular telephone transmitter** of the transmitter/receiver section (i.e., the transceiver). Based on the above citation, Schmidt clearly discloses that the multi-mode wireless communicator device 100 is used inside a mobile cellular phone, not inside an access point, as alleged by the Examiner. If the Examiner disagrees, the Applicant respectfully requests the Examiner to provide specific citation for support to his argument.

Therefore, based on the foregoing rationale, the Applicant maintains that Schmidt does not overcome Lee's deficiency in disclosing "**allocating a processor within said access point**, said processor compatible with said determined protocol; and **processing said communication signal by said allocated processor within said access point**," as recited by the Applicant in independent claim 1.

Accordingly, since there is no disclosure or suggestion of an allocated processor within an access point, the Applicant also submits that the combination of Lee and Schmidt subsequently also does not disclose or suggest the limitation of "processing said communication signal by said allocated processor within said access point," as recited by the Applicant in claim 1.

Therefore, independent claim 1 is not rendered unpatentable by the combination of Lee and Schmidt, and is allowable. The Applicant respectfully request that the rejection of independent claim 1 under 35 U.S.C. § 103(a) be withdrawn. Independent claims 11 and 21 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 11 and 21 are also

allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1.

## **II. REJECTION UNDER 35 U.S.C. § 103**

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a

prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

**A. The Proposed Combination of Lee and Schmidt Does Not Render Claims 1-31 Unpatentable**

The Applicant now turns to the rejection of claims 1-31 as being unpatentable over Lee, in view of Schmidt.

**A(1). Independent Claims 1, 11 and 21**

With regard to the rejection of independent claim 1 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Lee and Schmidt does not disclose or suggest at least the limitations of **"allocating a processor within said access point, said processor compatible with said determined protocol; and processing said communication signal by said allocated processor within said access point,"** as recited by the Applicant in independent claim 1.

In the Final Office Action, the Examiner concedes that Lee does not disclose or suggest "allocating a processor within said access point, said processor compatible with said determined protocol," as recited by the Applicant in claim 1. The Examiner then looks for support to Schmidt and states the following:

"Lee lacks what Schmidt discloses, "allocating a processor within the access point (dedicated CPU and digital signal processor, which are in a wireless communicator device, configured to operate optimally on specific problem, see col.5, ln.38-40 and ln.51-66) the processor compatible with the determined protocol (a bank of DSPs with embedded functions ); and

processing the communication signal by the allocated processor ( number of active processor is controlled depending on the application, see col.5, ln.64-67)."

See the Final Office Action at page 2. The Examiner seems to rely for support on Schmidt's disclosure of a reconfigurable processor core 150, which is located within a wireless communicator device 100, to allege that the wireless communicator device 100 is the claimed access point, and the disclosed programmable processors 151 and 153 within the processor core 150, as "allocating a processor within said access point, said processor compatible with said determined protocol," as recited by the Applicant in claim 1.

The Applicant respectfully disagrees and points out that the wireless communicator device 100 is inside a mobile cellular phone, and not inside a base station or in an access point. To further substantiate the Applicant's argument that Schmidt's multi-mode wireless communicator device 100 is used in a mobile station (i.e., a mobile cell phone), and not in a base station (i.e., an access point), the Examiner is referred to the Applicant's "Response to Examiner's Arguments" above in section I, where the Applicant stated the following citation by Schmidt:

**"For voice reception**, the combined signals are processed by the **processor core 150** to form PCM voice samples that are subsequently converted into an analog signal **and provided to an external speaker or earphone**. For data reception, the processor simply transfers the data over an input/output (I/O) port. **During voice transmission, an off-chip microphone captures analog voice signals**, digitizes the signal, and provides the digitized signal to the processor core 150...**During data**



**transmission, the data is modulated ... then fed to the cellular telephone transmitter of the transmitter/ receiver section."**

See Schmidt at col. 4, lines 36-63 (emphasis added). The Applicant points out that Schmidt discloses that for voice reception, the processor core 150 disclosed in the multi-mode wireless communicator device 100, converts the PCM voice samples **into an analog signal for an external speaker or earphone**. The Applicant points out that such analog output function "to an external speaker or ear phone", is clearly performed by a mobile cell phone, not by an access point. In addition, Schmidt also discloses that for data transmission, the processor core 150 modulates data and **feeds to the cellular telephone transmitter** of the transmitter/receiver section (i.e., the transceiver). Based on the above citation, Schmidt clearly discloses that the multi-mode wireless communicator device 100 is used inside a mobile cellular phone, not inside an access point, as alleged by the Examiner. If the Examiner disagrees, the Applicant respectfully requests the Examiner to provide specific citation for support to his argument.

Therefore, based on the foregoing rationale, the Applicant maintains that Schmidt does not overcome Lee's deficiency in disclosing "**allocating a processor within said access point**, said processor compatible with said determined protocol; and **processing said communication signal by said allocated processor within said access point**," as recited by the Applicant in independent claim 1.

Accordingly, since there is no disclosure of an allocated processor within an access point, the Applicant also submits that the combination of Lee and Schmidt subsequently also does not disclose or suggest the limitation of "processing said

communication signal by said allocated processor within said access point," as recited by the Applicant in claim 1.

Therefore, independent claim 1 is not rendered unpatentable by the combination of Lee and Schmidt, and is allowable. The Applicant respectfully request that the rejection of independent claim 1 under 35 U.S.C. § 103(a) be withdrawn. Independent claims 11 and 21 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 11 and 21 are also allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1.

**A(2). Rejection of Dependent Claims 2-7, 10, 12-17, 20, and 22-27**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 11, and 21 under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Schmidt has been overcome and request that the rejection be withdrawn. Additionally, claims 2-10, 12-20, and 22-31 depend directly or indirectly from independent claims 1, 11, and 21, respectively, and are, consequently, also respectfully submitted to be allowable.

In addition, regarding claim 2, the Applicant submits that claim 2 is allowable since Lee does not disclose an allocated processor within the access point. Likewise, claims 12 and 22 are allowable based on the same rationale in claim 2.

In addition, regarding claim 3, the Applicant submits that claim 3 is allowable since Lee in Fig. 1 discloses the entire AP (access point) instead of an allocated processor within the access point. Likewise, claims 13, 14-17, 23 and 24-27 are allowable based on the same rationale in claim 3.

Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 2-10, 12-20, and 22-31.

**CONCLUSION**

Based on at least the foregoing, the Applicant believes that all claims 1-31 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Patent Agent at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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